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NOTES ON GEOGRAPHIC DISTRIBUTION

On the southern limit of distribution of the crab *Plagusia depressa* (Fabricius, 1775) (Brachyura: Plagusiidae) along the continental Brazilian coast

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ABSTRACT: The southern limit of distribution of the amphi-Atlantic cliff crab *Plagusia depressa* (Fabricius, 1775) is extended on the continental Brazilian coast from Praia do Arembepe, Bahia (*ca*. 12°46′ S) to Ilhéus, Bahia (*ca*. 14°48′ S).

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The amphi-Atlantic cliff crab *Plagusia depressa* (Fabricius, 1775), known in Brazil by the vernacular name *aratu-da-pedra* (Coelho *et al*. 2004), inhabits intertidal and very shallow subtidal zones, where it can be found in fissures and crevices of rocks, tidal pools and jetties (Powers 1977). Moreover, crabs of the genus *Plagusia* Latreille, 1804 often cling to drifting substrata such as debris, buoys, oil platforms and ship hulls, which enable them to distribute over long distances by rafting and to be introduced in non-indigenous areas by anthropogenic activities (Rathbun 1918; Carlton 1987; Schubart *et al*. 2001).

Along the Brazilian coast, *P. depressa* has been recorded from the states of Ceará, Rio Grande do Norte, Paraíba, Pernambuco and Bahia (see a list of records by state in Coelho *et al*. 2008). Oceanic areas of occurrence include Atol das Rocas, the archipelagos of Fernando de Noronha and São Pedro e São Paulo, and Ilha da Trindade (Melo 1996; Coelho *et al*. 2008).

Melo (1996) mentioned the coast of state of Bahia, which represents approximately 12% of the Brazilian coast (Almeida and Coelho 2008), as southern limit of distribution of *P. depressa* in continental Brazilian waters. However, the precise limit of distribution was not reported by Melo (1996). Recently, a specimen of *P. depressa* collected in Ilhéus, Bahia, near Morro de Pernambuco in November 2013, collected by a fisherman, was donated to us by T. Lima. We reviewed the literature concerning this species and have not found any other published reference on the occurrence of the species in Bahia. However, we located one lot of *P. depressa* from Arembepe, northern Bahia coast, deposited at the crustacean collection of Museum of Zoology, University of São Paulo (MZUSP), São Paulo, Brazil. This is probably the origin of the record from Bahia reported by Melo (1996). Thus, the record from Ilhéus represents the southern known limit of distribution of this species along the Brazilian coast and, for this reason, it is worth of publishing, because this information will be needed for further zoogeographic studies on the species. The material examined is deposited in the crustacean collection of the MZUSP and Department of Biology, Faculty of Philosophy, Sciences and Letters, University of São Paulo, Ribeirão Preto, Brazil (CCDB).

FIGURE 1. *Plagusia depressa* (Fabricius, 1775), male (carapace width: 54.1 mm; carapace length: 53.1 mm) from Ilhéus, Bahia, Brazil, dorsal view, CCDB 5249.

Family Plagusiidae Dana, 1851
Subfamily Plagusiinae Dana, 1851
Plagusia depressa (Fabricius, 1775) (Figure 1)

Material examined: Brazil, state of Bahia: 1 female (ovigerous), Camaçari, Praia do Arembepe, 16.xi.1971, MZUSP 3917; 1 male, Ilhéus, near Morro de Pernambuco, xi.2013, CCDB 5249.

Distribution: Western Atlantic: North Carolina, Florida, Gulf of Mexico, West Indies and Brazil (Atol das Rocas, archipelagos of São Pedro e São Paulo and Fernando de Noronha, Ilha da Trindade, and from the States of Ceará to Bahia). Central Atlantic: Ascension and Saint Helena. Eastern Atlantic: Azores, Madeira, and from Senegal to Angola (Powers 1977; Manning and Chace 1990; Melo 1996).

Remarks: The occurrence of *P. depressa* in Ilhéus

represents a short range extension of the species along the Brazilian coast (from Praia do Arembepe, *ca*. 12°46′ S, to Ilhéus, *ca*. 14°48′ S) (Figure 2). Many factors (abiotic and biotic) might limit its southern distributional range and further studies on ecology of *P. depressa* are needed to better understand its biogeographic pattern. In over 10 years of intensive collecting by the authors on the coast of Ilhéus, this was the only specimen collected, so it may be considered a fairly uncommon species in the area.

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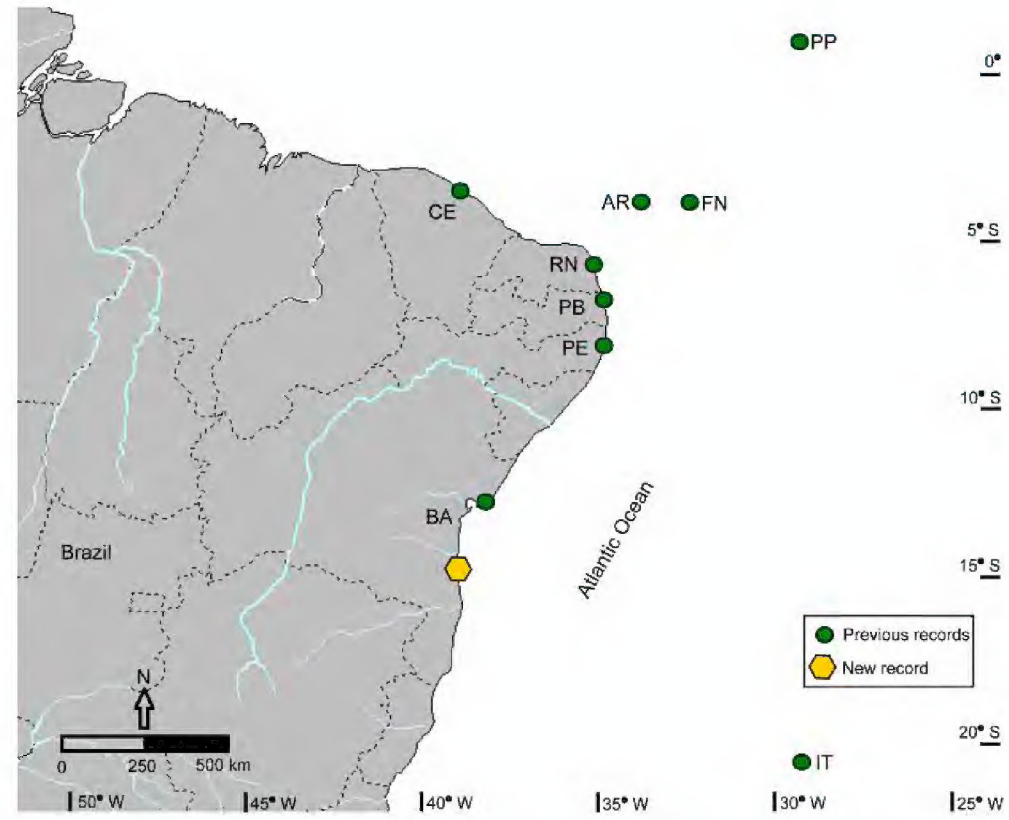

Figure 2. Presently known range of the plagusiid crab *Plagusia depressa* (Fabricius, 1775) in Brazil. Previous records of occurrence based on Coelho *et al*. (2008). (AR) Atol das Rocas, (BA) Bahia, (CE) Ceará, (FN) Fernando de Noronha, (IT) Ilha da Trindade, (PB) Paraíba, (PE) Pernambuco, (PP) Arquipélago de São Pedro e São Paulo, (RN) Rio Grande do Norte.

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